

# **LEFT VENTRICULAR CONDUITS TO CORONARY ARTERIES AND METHODS FOR CORONARY BYPASS**

## **Abstract of the Disclosure**

Left ventricular conduits and related methods are disclosed for achieving bypass  
5 of a partially or completely occluded coronary artery. More broadly, conduits for  
allowing communication of bodily fluids from one portion of a patient's body to another  
and related methods are disclosed, including conduits for forming a blood flow path  
from a chamber of the heart to a vessel or from one vessel to another. In other  
embodiments, the conduits achieve a coronary artery bypass by allowing blood  
10 communication between the left ventricle and the coronary artery or between a proximal  
portion of the coronary artery and a distal portion of the coronary artery. The conduits  
may be placed completely through the heart wall or extend only partially therein.  
Conduits may take on a variety of configurations for allowing the control of blood flow  
therethrough, including curved or tapered shapes. The conduits may also follow a  
15 variety of paths, including direct transmyocardial communication between the left  
ventricle and the coronary artery, or through the myocardium and into the  
intrapericardial space and then into the coronary artery. The conduits may be implanted  
through a variety of methods, including minimally invasive techniques. Also disclosed  
are various preferred embodiments of medical devices and related methods for  
20 implanting the conduits including rigid delivery rods for penetrating bodily tissue. The  
delivery rods may be solid, thus being trocar-like, or hollow to form a self-implantable  
conduit. Other preferred rod embodiments may have the conduits mounted thereon and  
take the form of a stylet or the like. The conduits may be one-piece, continuous  
conduits or made up of a number of plural sections joined together. Disclosures of  
25 various anastomosis devices are provided.

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